

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Gerald B. Hollins, Reg. No. 25452 on 07/01/2008.

The application has been amended claims 10 and 19-20 as follows:

10. (Currently Amended) Approximated Kernel function utilizing radio receiver apparatus comprising the ~~combination~~ steps of:

a source of said radio receiver connected multiple frequency microwave radio frequency signals to be evaluated for signal component characteristics;

an implemented Fourier transformation algorithm connected with said source of multiple frequency microwave radio frequency signals;

said implemented Fourier transformation algorithm in said radio receiver including a selected plurality of approximated Fourier transformation Kernel function locations, disposed within a complex plane plot of real and imaginary values, having selected integral unit real and imaginary component magnitudes and identifying locations received within an annular arc of selected greater than zero radial thickness overlying said plot of real" and imaginary values;

said implemented Fourier transformation algorithm in said radio receiver including a bit shift multiplication realization, of shift, multiple shift and multiple shift plus a selected one of addition and subtraction characterization, executing simplified multiplication operations involving real and imaginary coordinate magnitudes of said Kernel function locations in said approximated Fourier transformation;

said selected approximated Fourier transformation Kernel function location coordinate magnitudes being elected to generate minimal spurious responses in an output signal of said implemented Fourier transformation algorithm and said radio receiver;

said bit shift multiplication realization of multiple shift and multiple shift plus a selected one of addition and subtraction characterization, also being optimized, in shift, multiple shift and multiple shift plus a selected one of addition and subtraction realization complexity, by said selected approximated Fourier transformation Kernel function location coordinate magnitudes;

whereby simplified kernel function implementation and enhanced multiple signal dynamic range characteristics are available in said radio receiver.

19. (Canceled)

20. (Currently Amended) The approximated digitized Fourier transformation Kernel function utilizing radio receiver ~~having~~ comprising:

digitized approximated Kernel function value locations disposed adjacent a Kernel function map circle of said radio receiver;

said Kernel function map circle being of radius dimension expressible as a power of two units along an arbitrary measurement scale, a radius dimension having a length from the numerical series of 1, 2, 4, 8, 16 and so-on units along said arbitrary measurement scale of said radio receiver;

shift and add multiplication-susceptible integral unit lengths for each real and imaginary component of digitized Kernel function points in said radio receiver Kernel function map;

substantially symmetrical digitized Kernel function point angular locations around said Kernel function map circle;

digitized Kernel function point locations adjacent said radio receiver Kernel function map circle being substantially optimized for shift multiplication algorithm implementation; and

digitized Kernel function point locations adjacent said radio receiver Kernel function map circle being substantially optimized for minimal approximation Kernel function spurious response generation with respect to adjacent possible approximation Kernel function locations;

whereby ~~said radio receiver is capable of a simple~~ simplified kernel function realization and enhanced multiple signal dynamic range with limited spurious response characteristics are provided in said radio receiver.

2. Claims 3 and 19 are cancelled.
3. Claims 1-2, 4-18 and 20 are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHAT C. DO whose telephone number is (571)272-3721. The examiner can normally be reached on Tue-Fri 9:00AM to 7:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lewis Bullock can be reached on (571) 272-3759. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Chat C. Do/
Primary Examiner, Art Unit 2193

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